

**Department of Environmental Conservation  
Response to Comments**

**For**

**Domestic Wastewater Treatment Lagoons  
Discharging to Surface Water**

**APDES Permit No. AKG573000**

**Public Noticed May 30, 2018 – June 29, 2018**

**FINAL, July 12, 2018**



**Alaska Department of Environmental Conservation  
Wastewater Discharge Authorization Program  
555 Cordova Street  
Anchorage, AK 99501**

## **1 Introduction**

### **1.1 Summary of Facility / Permit**

General Permit AKG573000, authorizes the discharge of up to 1.0 million gallons per day to either fresh or marine surface water from domestic wastewater treatment lagoons that provide equivalent to secondary or secondary treatment. The permit is the reissuance of AKG573000, previously issued on August 1, 2013.

### **1.2 Opportunities for Public Participation**

The Department of Environmental Conservation (DEC or the Department) proposed to issue an Alaska Pollutant Discharge Elimination System (APDES) wastewater discharge general permit, *Domestic Wastewater Treatment Lagoons Discharging to Surface Water*. To ensure public, agency, and tribal notification and opportunities for participation the Department:

- identified the permit on the annual Permit Issuance Plan posted online at:  
<http://dec.alaska.gov/water/wastewater.aspx>
- notified potentially affected tribes and local governments that the Department would be working on this permit via letter, fax and/or email on September 5, 2017
- posted a preliminary draft of the permit on-line for a 10-day applicant review May 9, 2018 and notified tribes, local government(s) and other agencies
- formally published public notice of the draft permit on May 30, 2018 in the Alaska Dispatch News and the Fairbanks Daily News-Miner and posted the public notice on the Department's public notice web page
- posted the proposed final permit on-line for a 5-day applicant review on July 5, 2018
- sent email notifications via the APDES Program List Serve when the preliminary draft, draft, and proposed final permits were available for review

The Department received comments from Northern Testing Laboratories, Inc (NTL) and the City of Dillingham. The Department also requested comments from the Alaska Departments of Natural Resources and Fish and Game, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Environmental Protection Agency; however, no comments were received from these agencies on the draft permit.

This document summarizes the comments and the justification for any action taken or not taken by DEC in response to the comments.

### 1.3 Final Permit

The final permit was issued by the Department on July 12, 2018. There were no changes from the public noticed permit.

## 2 Specific Limitations and Monitoring Requirements:

### 2.1 Comment Summary

#### Permit Section 2.0.

NTL commented that lagoons, particularly northern lagoons, remain photosynthetic most of the day and into the night during the summer which can result in short-term algae blooms and pH maximum daily limit exceedances. NTL recommended that DEC consider changing the pH limits in AKG573000 from 6.5 standard units (s.u.) to 8.5 s.u. to 6.0 s.u. to 9.0 s.u. and to base the maximum limit on a monthly average of daily readings. Alternatively, NTL recommended that DEC allow for a short-term deviation of the upper pH permit limit when there are naturally occurring algae blooms. NTL stated that an additional requirement for pH sampling above and below the discharge point during a pH permit limit exceedance would confirm that the pH of the receiving waterbody is within water quality criteria and that the sampling would ensure minimal environmental impact. NTL further recommended standard pH mixing zones ranging from 100 feet for the smallest discharges (Class D < 60,000 gallons per day (gpd)) up to 1,000 feet for the largest (Class A 250,000 gpd to 1 million gallons per day).

#### Response:

The 40 Code of Federal Regulations (CFR) §133.105 requires that equivalent to secondary facilities meet the pH effluent secondary treatment standards found at 40 CFR §133.102(c). DEC adopted the pH limits at 40 CFR §133.105 by reference at 18 Alaska Administrative Code (AAC) 83.010 (e). The secondary treatment standards require pH maintenance within the range of 6.0 and 9.0 s.u. Alaska Water Quality Standards at 18 AAC 70.020(b)(6) for freshwater uses and 18 AAC 70.020(b)(18) for marine uses, require that pH may not be less than 6.5 or greater than 8.5 s.u. The Clean Water Act requires DEC to select the more stringent of the technology-based or water-quality based effluent limit; therefore, the effluent limits contained in AKG573000 are the water-quality based effluent limits (6.5 - 8.5 s.u.). Permit Section 2.3.1 states that the tables contained in Permit Section 2 contain effluent limits for lagoons that are not authorized mixing zones. Permit Section 2.4.1 states that permittees may request modifications to pH effluent limits pursuant to 18 AAC 70.260. Out of the 42 lagoons requesting reauthorization under AKG573000, 31 have previously authorized mixing zones containing pH modified effluent limits of 6.0-9.0 s.u. Appendix D of AKG573000 contains a list of lagoons and their respective effluent limits. Because the pH limits contained in AKG573000 are consistent with State and Federal regulations, and because permittees may request modification to their effluent limits and mixing zones, any changes to the pH limits, monitoring requirements, or mixing zones is not warranted at this time.

There were no changes to AKG573000 based on this comment.

## **2.2 Comment Summary**

### **Permit Section 2.0.**

The City of Dillingham cited concerns for changes to dissolved oxygen (DO) and fecal coliform (FC) bacteria effluent limits. The City stated that dissolved oxygen minimum daily limit in AKG573000 was raised from 2 milligram per liter (mg/L) to 6 mg/L (marine) and that the average monthly FC limit was decreased from 200 FC/100 milliliter (mL) to 14 FC/100 mL (marine) and the maximum daily FC limit was decreased from 400 FC/100 mL to 43 FC/100 mL (marine).

#### **Response:**

Permit Section 2.3.1 states that the tables contained in Permit Section 2 contain effluent limits for lagoons that are not authorized mixing zones. Permit Section 2.4.1 states that permittees may request modifications to DO and FC bacteria pursuant to 18 AAC 70.260. Appendix D of the permit lists previously authorized lagoon-specific mixing zones and corresponding modified effluent limits. The City of Dillingham is listed in Appendix D with a DO effluent limit (minimum) of 2 mg/L, an average monthly FC limit of 200 FC/100 mL, and a maximum daily FC limit of 400 FC/100 mL.

There were no changes to AKG573000 based on this comment.

## **3 Water Quality Standards**

### **3.1 Comment Summary**

#### **Permit Section 1.1. Coverage and Eligibility**

NTL stated that one of the qualification requirements for coverage under AKG573000 is the allowance of a conveyance channel of a maximum of 100 feet in length for a lagoon to discharge to fresh or marine water. NTL recommends that the controlled discharge conveyance channel distance limit be increased.

#### **Response:**

The permit provides coverage to lagoons that discharge directly to fresh or marine surface water or whose discharge through the discrete conveyance reaches within 100 feet of a surface waterbody. The permit criteria does not limit the length of the conveyance. The eligibility criteria is for coverage of those discharges through a discrete conveyance (regardless of length) which do not discharge directly to (reach) a surface water, however, the discharge completes or ends within 100 feet of a surface water.

There were no changes to AKG573000 based on this comment.